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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/617,733	07/14/2003	Takatsugu Doi	053588-5013	3599
9629	7590	04/06/2005	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			SHAH, MANISH S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/617,733

Applicant(s)

DOI, TAKATSUGU

Examiner

Manish S. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 7-21 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☒ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objections

1. Claims 12-14 & 20 are objected to because of the following informalities:

With respect to claim 12, in equation (2) $0.25 \leq W_3/W_1 < 0.75$, it suppose to be $0.25 \leq W_3/W_1 \leq 0.75$. Claims 13-14 & 20 are dependant claim. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (# US 6153001) in view of Doi et al. (# US 6378999).

Suzuki et al. discloses an inkjet ink including at least a pigment, a water-soluble solvent and water, wherein the water-soluble solvent including a first water-soluble solvent having a triethylene glycol has a general formula $\text{HO}(\text{C}_2\text{H}_4\text{O})_3\text{H}$, has a solubility parameter (SP1) is 14 (column: 31, line: 35-40), and $W1= 5$ parts by weight; a second water-soluble solvent is a glycerol, has a solubility parameter is 20 (column: 32, line: 29-30), and $W2= 5$ parts by weight; and a third water-soluble solvent is a 2-propanol

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(isopropyl alcohol), has a solubility parameter is 12 (column: 32, line: 60-62), and $W_3 = 3$ parts by weight (column: 20, line: 1-20); which satisfy the equation $W_2/W_1 = 5/5 = 1$, and $W_3/W_1 = 3/5 = 0.6$ (see Example: I-5). They also disclose that the ink including a pigment, which is self-dispersible in water (column: 7, line: 5-10), a cationic or anionic polymer (column: 7, line: 35-40), and the pigment is dispersed by the polymeric dispersant (column: 7, line: 7-10).

Suzuki et al. differs from the claim of the present invention in that an absolute value of a ξ potential of the inkjet ink in the range of 3 mV to 60 mV.

Doi et al. teaches that to have the bleed free and high optical density printed image, ink composition having an absolute value of a ξ potential (zeta potential) of the inkjet ink in the range of 20 mV to 50 mV (column: 13, line: 20-45).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Suzuki et al. by the aforementioned teaching of Doi et al. in order to have the bleed free and high optical density printed image.

Allowable Subject Matter

3. Claims 1-5 & 7-21 are allowed.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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(1) Komatsu et al. (# EP 1013728 A1) discloses that the inkjet ink composition having the zeta potential of not less than 30 mV (see Abstract).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Manish S. Shah
Primary Examiner
Art Unit 2853


MSS
3/31/05